



NASPAG Position Statement on COVID-19 vaccines and Gynecologic Concerns in Adolescent and Young Adults

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With COVID-19 vaccine eligibility expanding into the adolescent age group, many teens, families and health care providers have thoughtful questions about the vaccine that are particular to this stage of development. Importantly, parents who accepted and even received the vaccine for themselves, have taken pause when approaching the vaccine for adolescents in their care citing specific concerns related to vaccine interactions with puberty, menstrual cycles, birth control and fertility. The North American Society of Pediatric and Adolescent Gynecology (NASPAG) offers the guidance below, based on available data as well as expert opinion, for those who may be seeking gynecologic information related to COVID-19 vaccine use in adolescents and young adults. COVID-19 vaccines that are approved by the rigorous Federal Drug Administration's Emergency Use Authorization and recommended by subsequent Center for Disease Control and Prevention Advisory Committee on Immunization Practices (CDC ACIP) as well as Health Canada and National Advisory Committee on Immunization (NACI) have been determined to be safe and effective and NASPAG supports their use in approved and eligible populations, which currently includes adolescents and young adults (1-3).

NASPAG advocates for the use of COVID-19 vaccines for children, when approved, and adolescents who are eligible now to protect them from COVID-19 infection and its sequelae, as well as to reduce the spread of the virus in the community and to vulnerable people. The American Academy of Pediatrics has reported that since the start of the pandemic, and as of April, 2021, 3.85 million children have been infected with COVID-19, 303 have died and children are now making up a greater proportion of all COVID-19 infections (4). Beyond the physical toll including hospitalizations, unpredictable courses with Multisystem Inflammatory Syndrome in Children (MISC) and long COVID symptoms, the emotional, social and educational impacts are far-reaching.

Updates on authorization of COVID-19 vaccines in teens in North America

- As of December, 2020, the Pfizer-BioNTech COVID-19 vaccine is authorized for use in adolescents and young adults aged 16 and older and the Moderna vaccine for use in young adults aged 18 and older. As of February, 2021 the Janssen COVID-19 vaccine was authorized for use in young adults aged 18 and older.
- In May, 2021 Canada was the first country to authorize use of Pfizer-BioNTech vaccine in adolescents aged 12 to 15 years.
- In the United States, emergency use authorization (EUA) was granted for the Pfizer vaccine in adolescents aged 12-15 years on May 4th, 2021. On May 12th, the CDC also endorsed the Pfizer vaccine for 12 to 15 year old teens.

Gynecologic Concerns in Adolescents

- COVID-19 vaccines can be used during puberty. Currently there are several routine recommended vaccines during adolescence including those directed against tetanus, diphtheria, pertussis, human papillomavirus and bacterial meningitis. There is no plausible biological mechanism or evidence to support concerns that puberty or growth would be altered by COVID-19 vaccines.
- Anecdotal and media reports of irregular menstrual cycles, including skipped periods, prolonged periods, spotting after COVID-19 vaccines in adult menstruators have been shared, and similar changes in menstrual cycles have been shared after COVID-19 infection. This is not surprising as infections, immune reactions, and fevers are understood to cause short-term, self-limited changes in cycles. However, further studies are needed to verify and characterize these changes in relationship to COVID-19 vaccines. In teens, it is also important to note the natural variability in cycles due to hypothalamic-pituitary-ovary axis maturation and the large range of normal menstrual cycles in the first few years after the onset of menses (5). Stress and weight changes, which have also occurred in many adolescents during the pandemic, can themselves cause these changes in menstrual cycles. Regardless of vaccine use, youth should be encouraged to track their menstrual cycles to become familiar with their own menstrual function and to discuss any concerns about their cycles with their gynecologists, pediatricians or adolescent medicine physicians or other health care providers.
- Adolescents and young adults who are using hormonal birth control may continue to do so when considering any of the approved COVID-19 vaccines. In April, 2021 the FDA added a warning to the Janssen COVID vaccine's EUA due to the extremely rare occurrence of Thrombosis with Thrombocytopenia Syndrome (TTS), approximately seven out of every million doses of Janssen COVID-19 vaccine administered to females age 18-49 years (6). An association with COVID-19 vaccine-related TTS and hormonal contraceptives has not been found. Accordingly, continuation of hormonal contraceptive use and COVID-19 vaccination is recommended for eligible young persons.

- Although teenage pregnancy rates have declined over the past few decades, the US has a high adolescent pregnancy rate (57 per 1,000 15-19 year old teens) compared to other developed countries (7). Pregnancy increases the risks of significant complications from COVID-19 infection. Many US adolescents are at risk for COVID-19 complications of pregnancy which are preventable by COVID-19 vaccination. ACOG and the Society of Obstetricians and Gynaecologists of Canada (SOGC) have endorsed vaccinating women against COVID-19 during pregnancy (6, 8).
- Current or future fertility is unlikely to be impacted by COVID-19 vaccines in teens as there is no scientific basis for any interaction. The vaccines do not alter a person's DNA or that of their offspring. Several professional societies, including American College of Obstetricians and Gynecologists (ACOG), the American Society for Reproductive Medicine (ASRM) and the Society for Maternal-Fetal Medicine (SMFM), issued a joint statement sharing that there is no evidence that the vaccine is associated with declines in fertility (9). The Society of Obstetricians and Gynaecologists of Canada (SOGC) has issued a similar statement (8).

Summary Guidance:

1. All children, adolescents, and young adults who are vaccine eligible should be offered their choice of available & approved COVID-19 vaccines.
2. There is no reason to delay the COVID 19 vaccine for an adolescent due to their stage of puberty.
3. Irregular periods are a common part of adolescence and are part of normal pubertal development. Menstrual cycles of adolescents have a wide normal range and if the vaccine has an effect on cycles, it is likely short-term and self-limited.
4. Adolescents and young adults who are sexually active and/or using hormonal or non-hormonal contraceptive methods should be offered the COVID-19 vaccine.
5. Pregnant adolescents should be offered the COVID-19 vaccine as they are a group at high risk of COVID complications. A pregnancy test is not indicated before a vaccine.
6. There is no scientific data that demonstrates a link between COVID-19 vaccine and fertility.

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Citations

1. FDA Office of Media Affairs. Coronavirus (COVID-19) Update: FDA Authorizes Pfizer-BioNTech COVID-19 Vaccine for Emergency Use in Adolescents in Another Important Action in Fight Against Pandemic. 10 May, 2021. Press Release. <https://www.fda.gov/news-events/press-announcements/coronavirus-covid-19-update-fda-authorizes-pfizer-biontech-covid-19-vaccine-emergency-use>
2. COVID-19 Vaccines for Children and Teens. Center for Disease Control and Prevention. 12 May 2021. <https://www.cdc.gov/coronavirus/2019-ncov/vaccines/recommendations/adolescents.html>
3. Government of Canada. National Advisory Committee on Immunization. Recommendations on the use of COVID-19 Vaccines. 5 May, 2021. <https://www.canada.ca/content/dam/phac-aspc/documents/services/immunization/national-advisory-committee-on-immunization-naci/recommendations-use-covid-19-vaccines/recommendations-use-covid-19-vaccines-en.pdf>
4. Cull, Bill and Harris, Mitch. American Academy of Pediatrics and the Children’s Hospital Association. Children and COVID-19: State-Level Data Report. *Itasca, Illinois*; 2021. <https://services.aap.org/en/pages/2019-novel-coronavirus-covid-19-infections/children-and-covid-19-state-level-data-report/>
5. Menstruation in girls and adolescents: using the menstrual cycle as a vital sign. Committee Opinion No. 651. American College of Obstetricians and Gynecologists. *Obstet Gynecol* 2015;126:e143–6.
6. Laura E. Riley, MD; Richard Beigi, MD; et al; Vaccinating Pregnant and Lactating Patients Against COVID-19, American College of Obstetric and Gynecology, 2021. <https://www.acog.org/clinical/clinical-guidance/practice-advisory/articles/2020/12/vaccinating-pregnant-and-lactating-patients-against-covid-19>
7. Wind, Rebecca: Teen Pregnancy Rates Declined In Many Countries Between The Mid-1990s and 2011. Guttmacher Institute 2015 Jan 23.
8. POLIQUIN, V; CASTILLO, E; BOUCOIRAN, I; WONG, J; WATSON, H; YUDIN, M; MONEY, D; VAN SCHALKWYK, J; ELWOOD, C on behalf of the Infectious Disease Committee of the Society of Obstetricians and Gynaecologists of Canada. SOGC Statement on COVID-19 Vaccination in Pregnancy. May 4, 2021.
9. ASRM, ACOG and SMFM Issue Joint Statement: Medical Experts Continue to Assert that COVID Vaccines Do Not Impact Fertility. American College of Obstetricians and Gynecologists , the American Society for Reproductive Medicine and the Society for Maternal-Fetal Medicine. 05 Feb, 2021. Press Release.